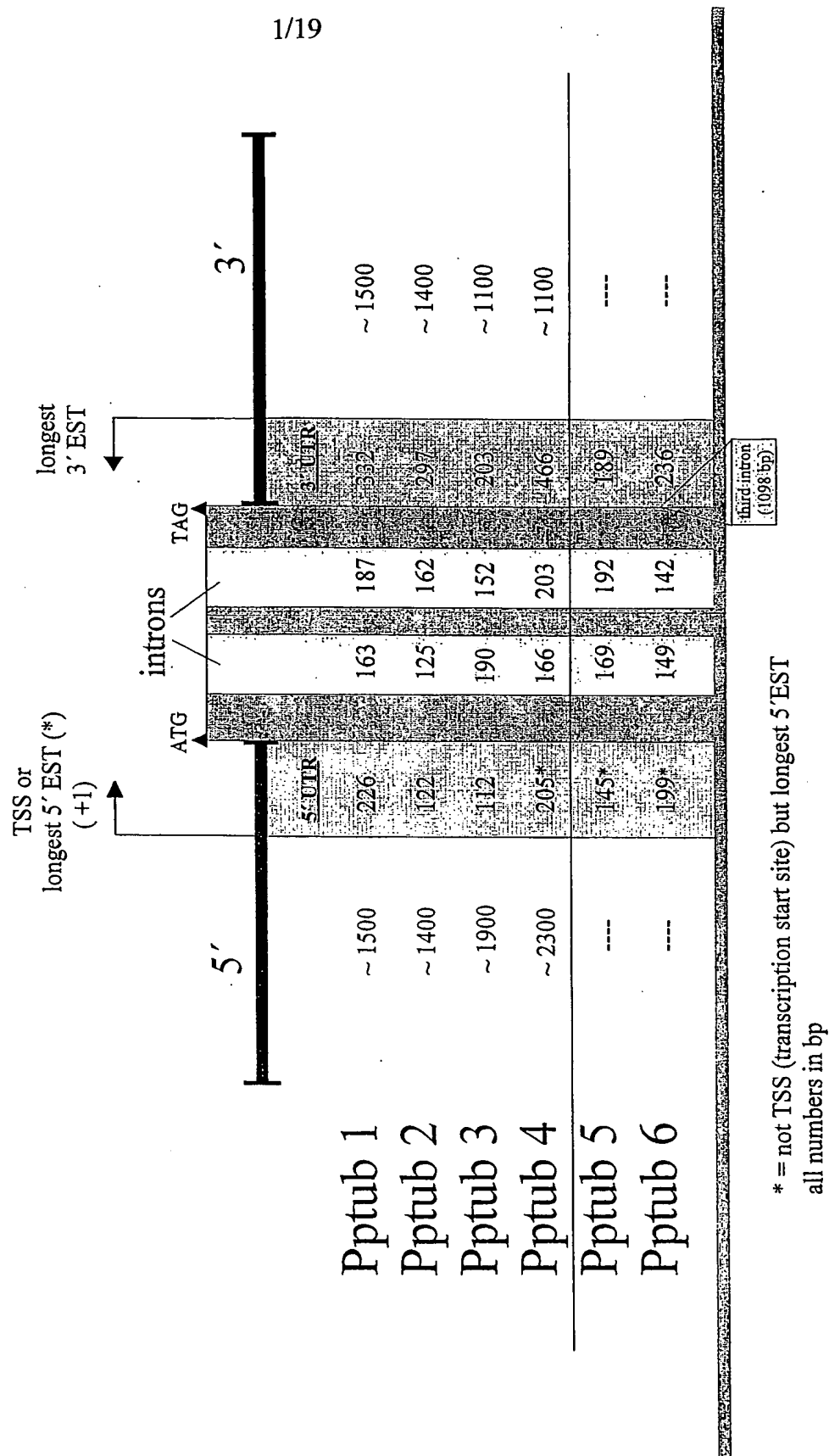
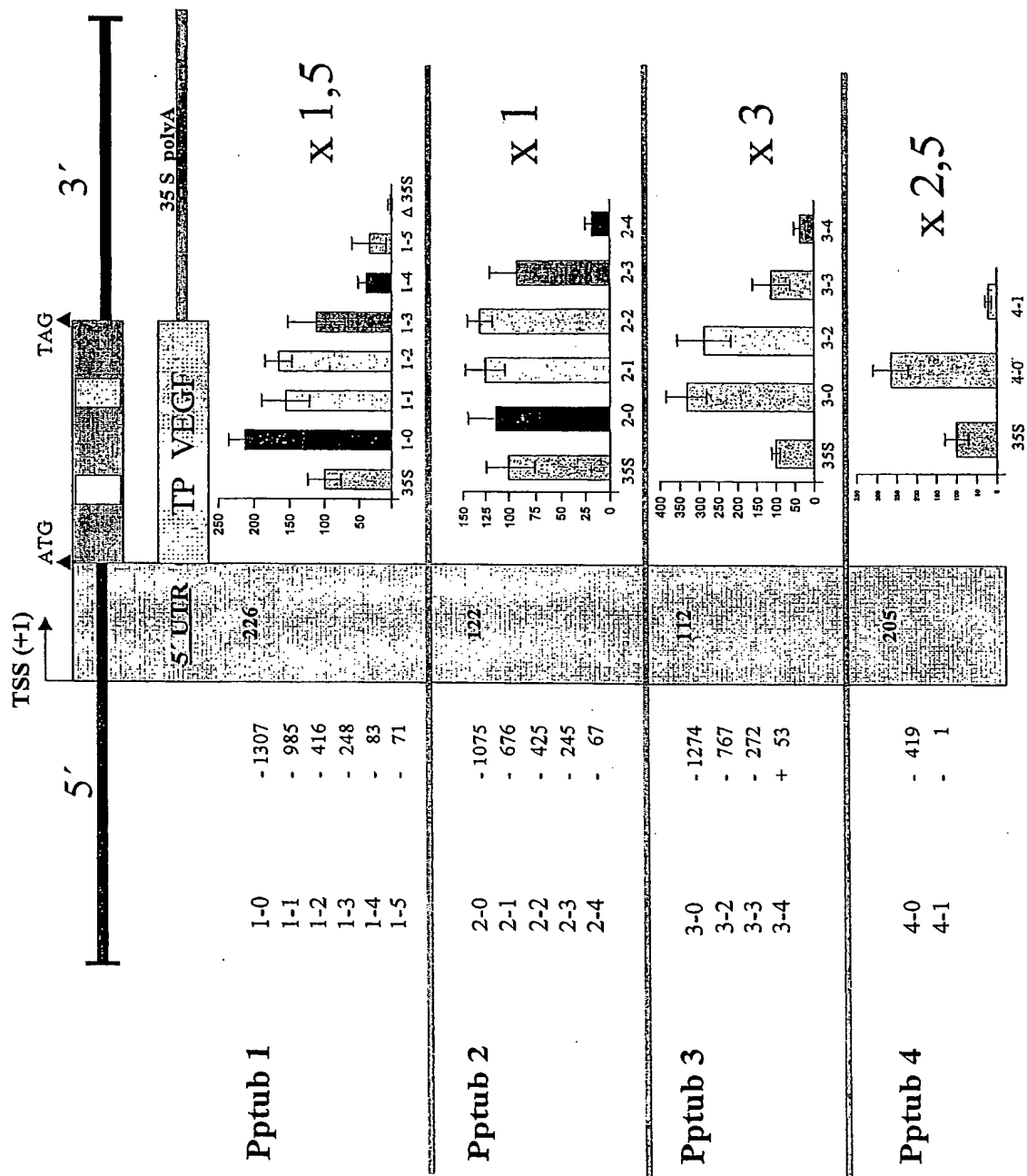


Fig. 1: β -tubulin genes in *Physcomitrella patens*

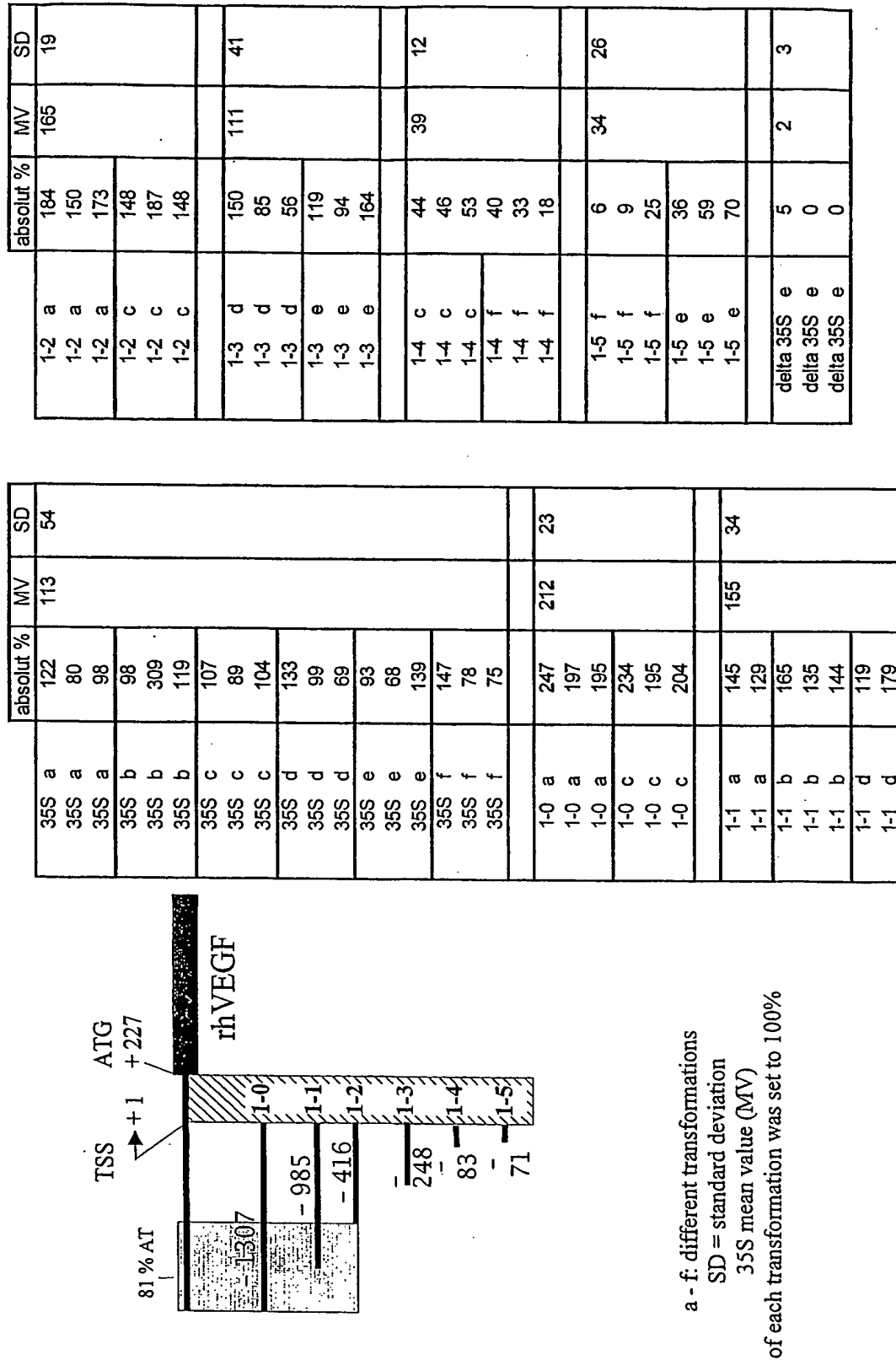
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Fig. 2: Analysis of expression promoting regions of β -tubulins in *Physcomitrella patens*



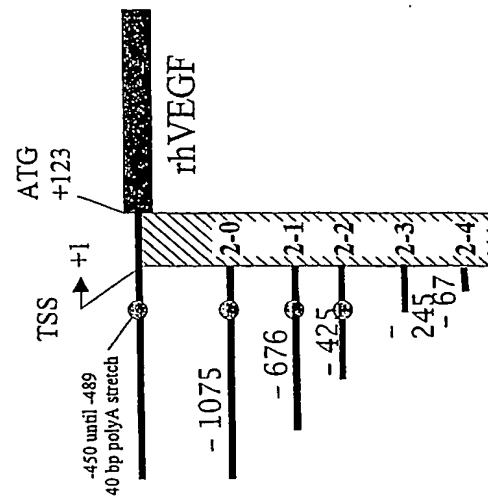
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Fig. 3: Analysis of expression promoting regions of Pptub 1 by transient transformation of rhVEGF constructs



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Fig. 4: Analysis of expression promoting regions of Pptub 2 by transient transformation of rhVEGF constructs



	absolut %	MV	SD
35S a	113	100	19
35S a	87		
35S b	102		
35S b	119		
35S b	80		
35S c	84		
35S c	116		
35S f	70		
35S f	120		
35S f	114		
35S g	127		
35S g	97		
35S g	76		
2-0 a	134	113	31
2-0 b	82		
2-0 b	160		
2-0 b	119		
2-0 c	104		
2-0 c	78		
2-1 a	155	125	22
2-1 a	132		
2-1 b	98		
2-1 b	99		
2-1 c	137		
2-1 c	129		

	absolut %	MV	SD
2-2 a	143	131	14
2-2 a	115		
2-2 b	136		
2-2 b	141		
2-2 b	110		
2-2 c	143		
2-2 c	127		
2-3 f	69	92	28
2-3 f	53		
2-3 f	127		
2-3 g	99		
2-3 g	117		
2-3 g	89		
2-4 f	17	18	7
2-4 f	17		
2-4 f	16		
2-4 g	18		
2-4 g	8		
2-4 g	31		

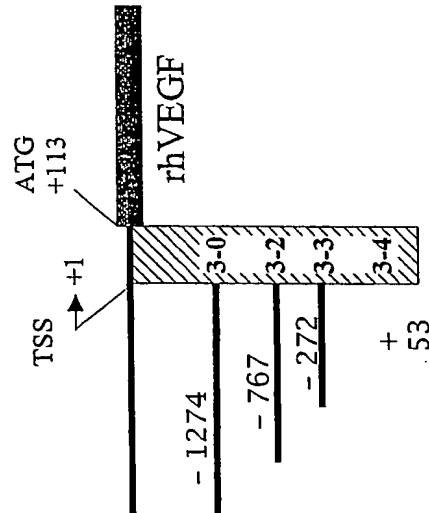
a - b, f and g: different transformations

SD = standard deviation

35S mean value (MV) of each transformation was set to 100%

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Fig. 5: Analysis of expression promoting regions of Pptub 3 by transient transformation of rhVEGF constructs



a - b, d and e: different transformations

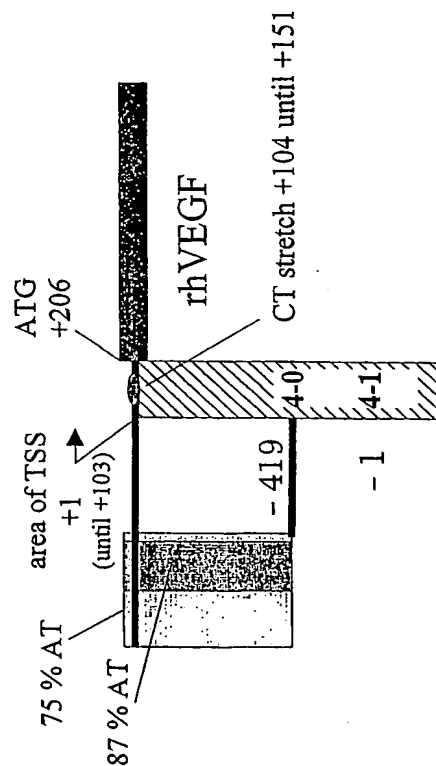
SD = standard deviation

35S mean value (MV) of each transformation was set to 100%

	absolut %	MV	SD
35S a	100	100	11
35S a	95		
35S a	105		
35S b	118		
35S b	81		
35S b	101		
35S d	94		
35S d	112		
35S d	94		
35S e	93		
35S e	89		
35S e	118		
3-0 e	293	332	52
3-0 e	251		
3-0 e	353		
3-0 b	387		
3-0 b	330		
3-0 b	379		
3-2 a	231	287	69
3-2 a	239		
3-2 a	247		
3-2 b	399		
3-2 b	348		
3-2 b	259		
3-3 b	138	112	49
3-3 b	104		
3-3 b	191		
3-3 d	44		
3-3 d	96		
3-3 d	101		
3-4 a	27	37	15
3-4 a	16		
3-4 a	46		
3-4 b	55		
3-4 b	50		
3-4 b	28		

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Fig. 6: Analysis of expression promoting regions of Pptub 4 by transient transformation of rhVEGF constructs



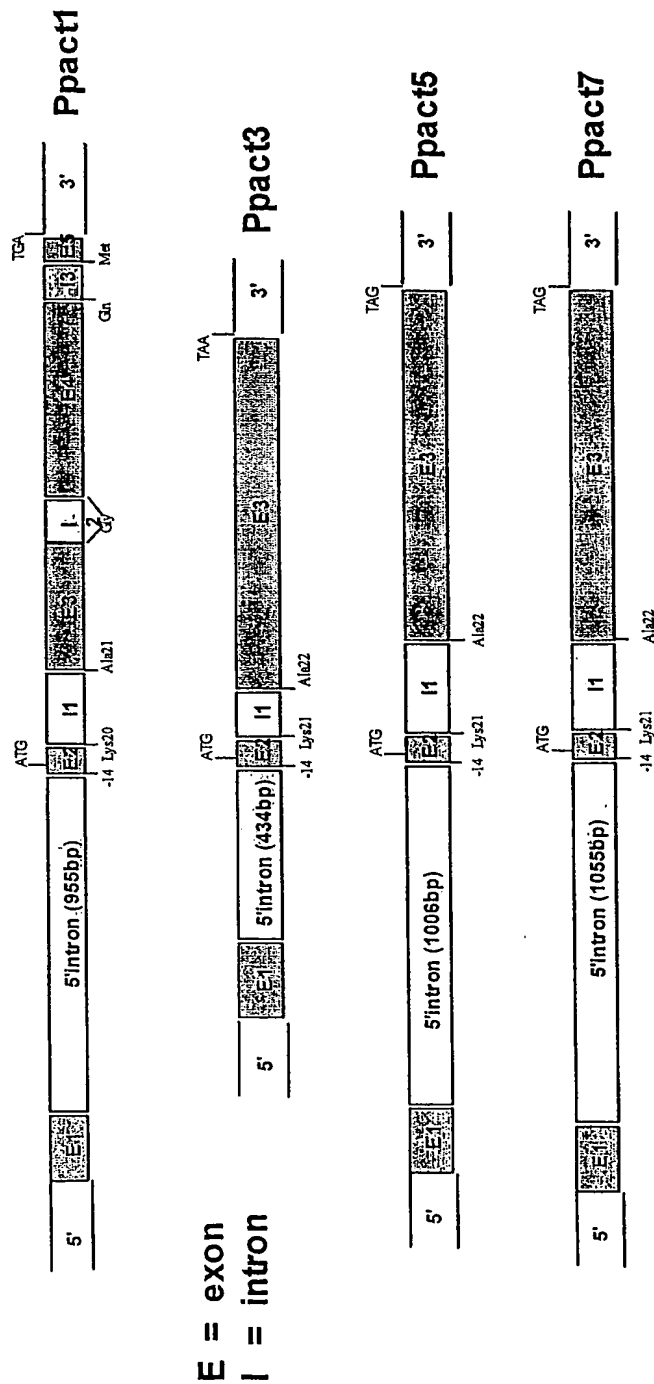
a and c: different transformations

SD = standard deviation

35S mean value (MV) of each transformation was set to 100%

	absolut %	MV	SD
35S a	63	100	30
35S a	95		
35S a	141		
35S c	70		
35S c	121		
35S c	109		
4-0 a	290	265	45
4-0 a	322		
4-0 a	229		
4-0 c	210		
4-0 c	273		
4-1 a	25	20	8
4-1 a	22		
4-1 a	5		
4-1 c	19		
4-1 c	30		
4-1 c	18		

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5'sequences resulting from iPCR:

- Ppact1: 2973 bp until ATG: 1824 bp promoter / 955 bp 5' intron
 Ppact3: 3091 bp until ATG: 2270 bp promoter / 434 bp 5' intron
 Ppact5: 3095 bp until ATG: 1909 bp promoter / 1006 bp 5' intron
 Ppact7: 3069 bp until ATG: 1805 bp promoter / 1055 bp 5' intron

Fig. 7: Genomic structure of *Physcomitrella patens* actin genes.

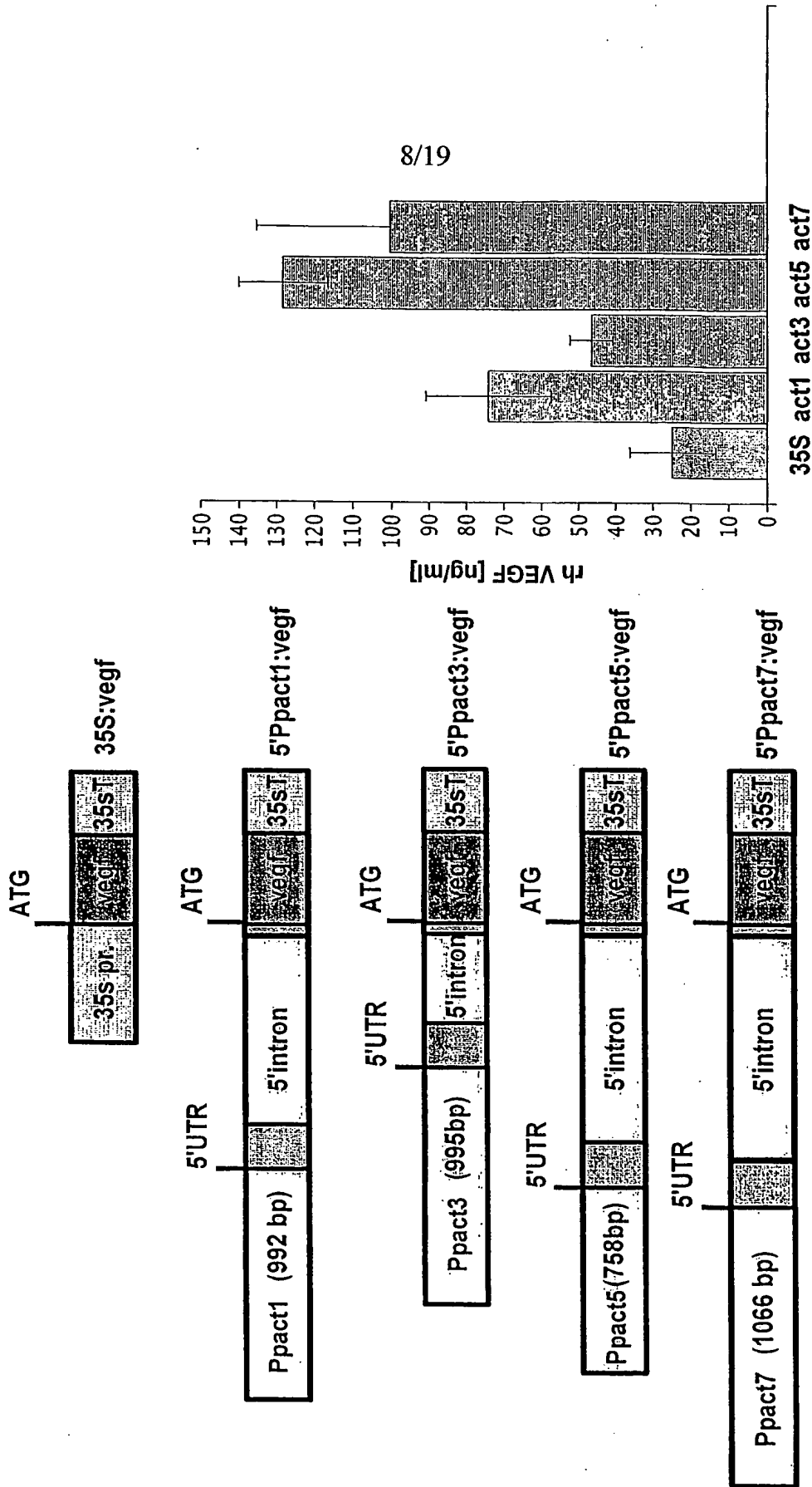


Fig. 8: Comparison of the expression activity of the different 5' actin regions.

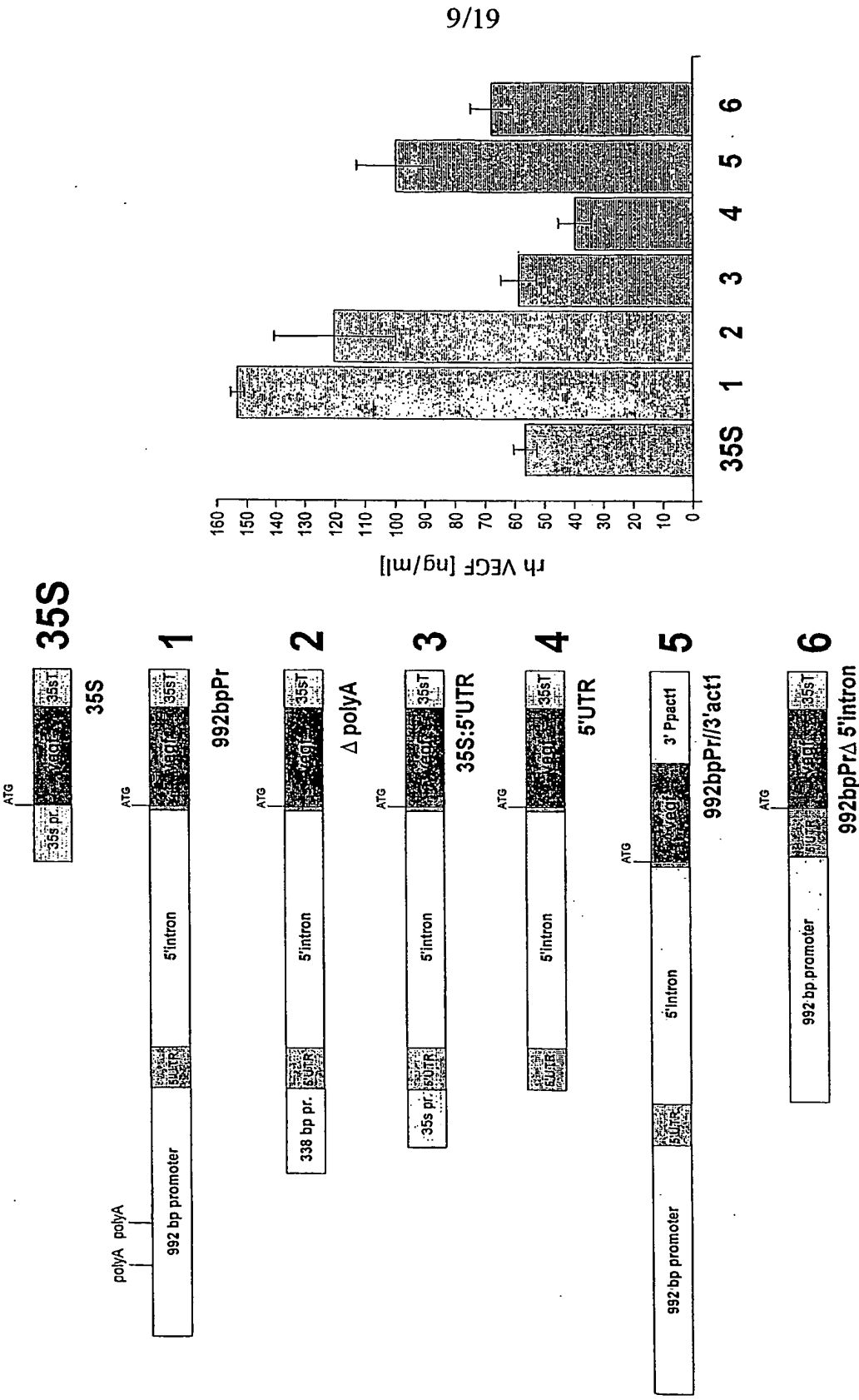


Fig. 9: Ppact1 constructs.

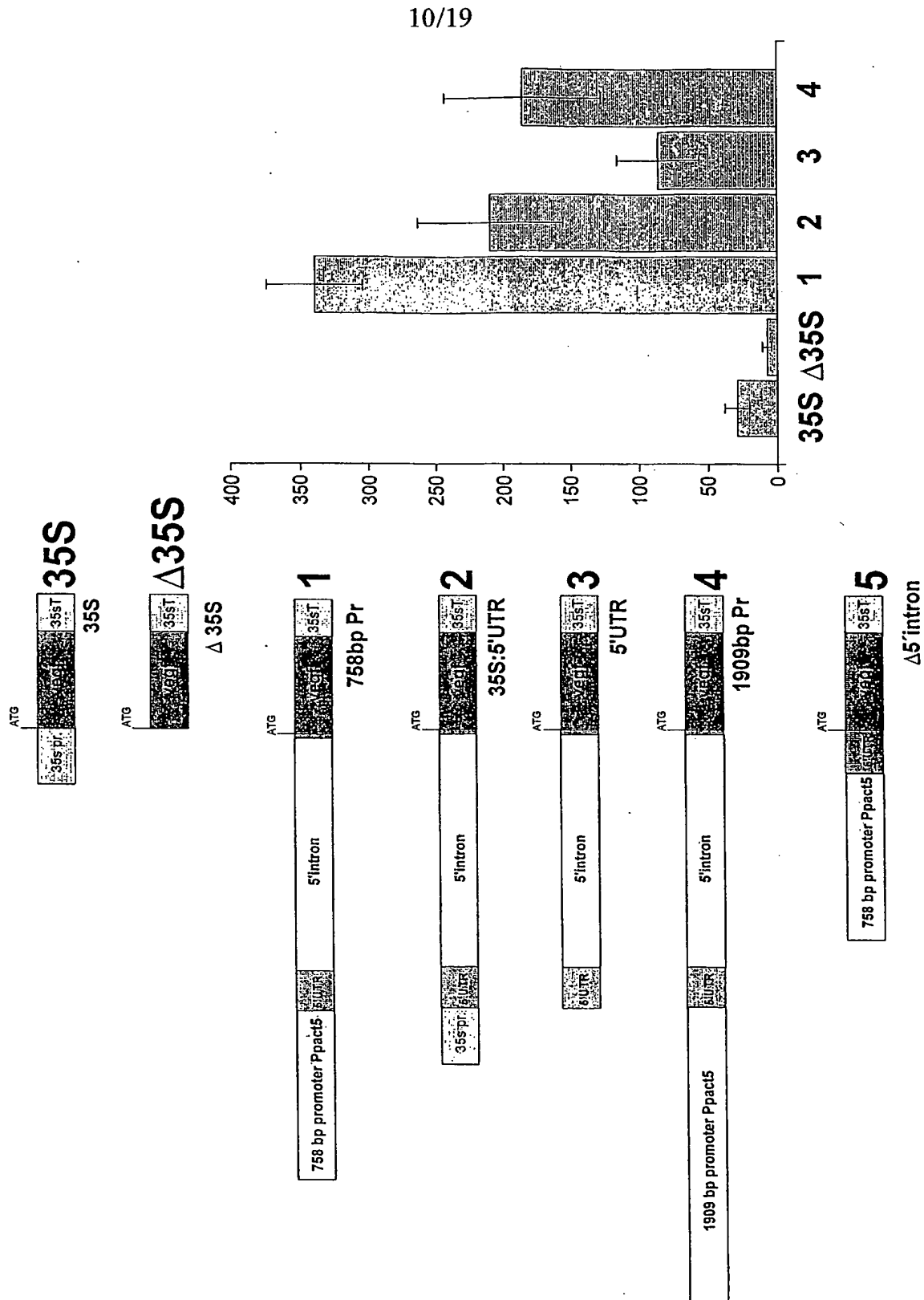


Fig. 10: Ppact 5 constructs.

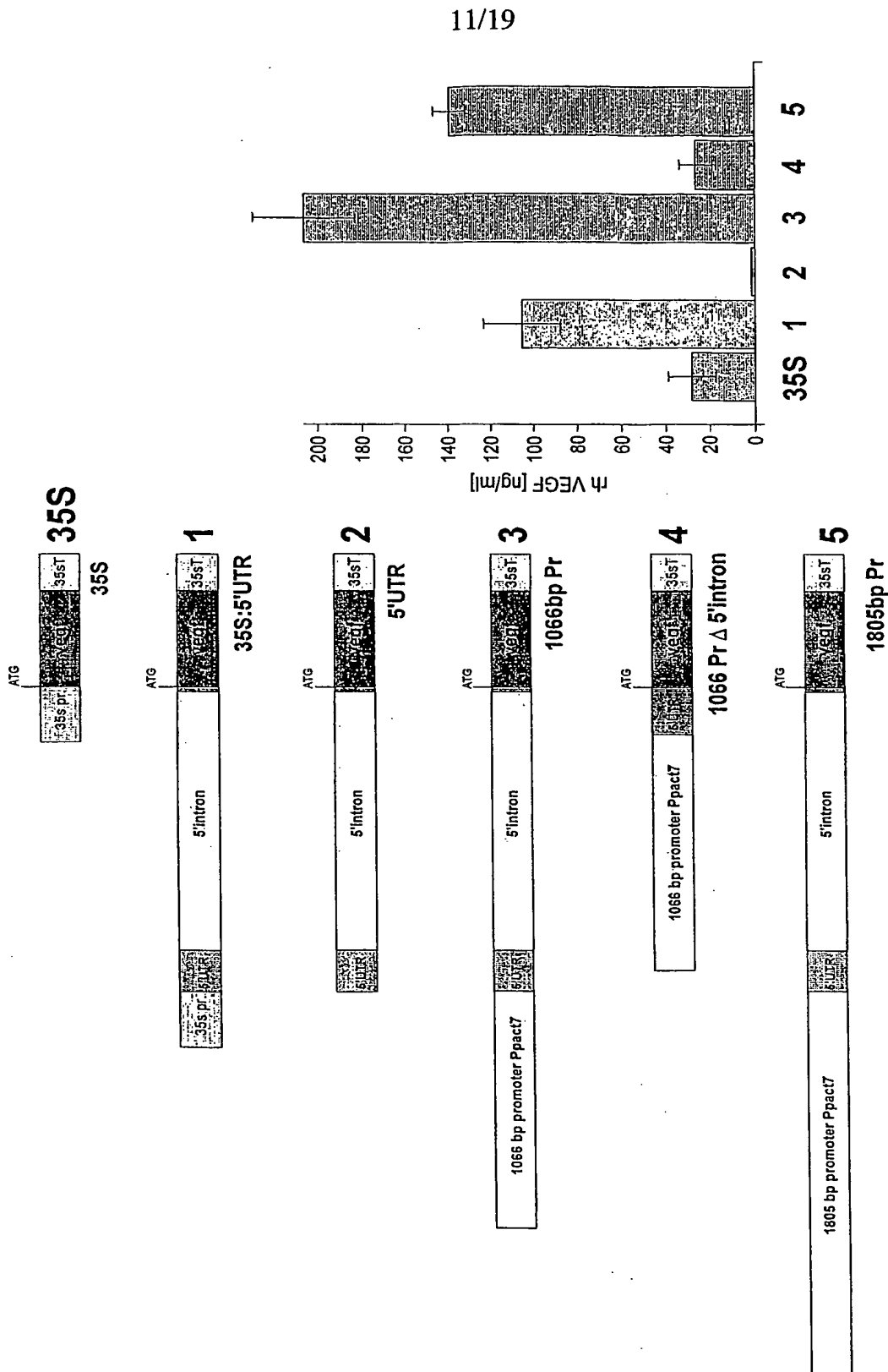


Fig. 11: Ppact 7 constructs.

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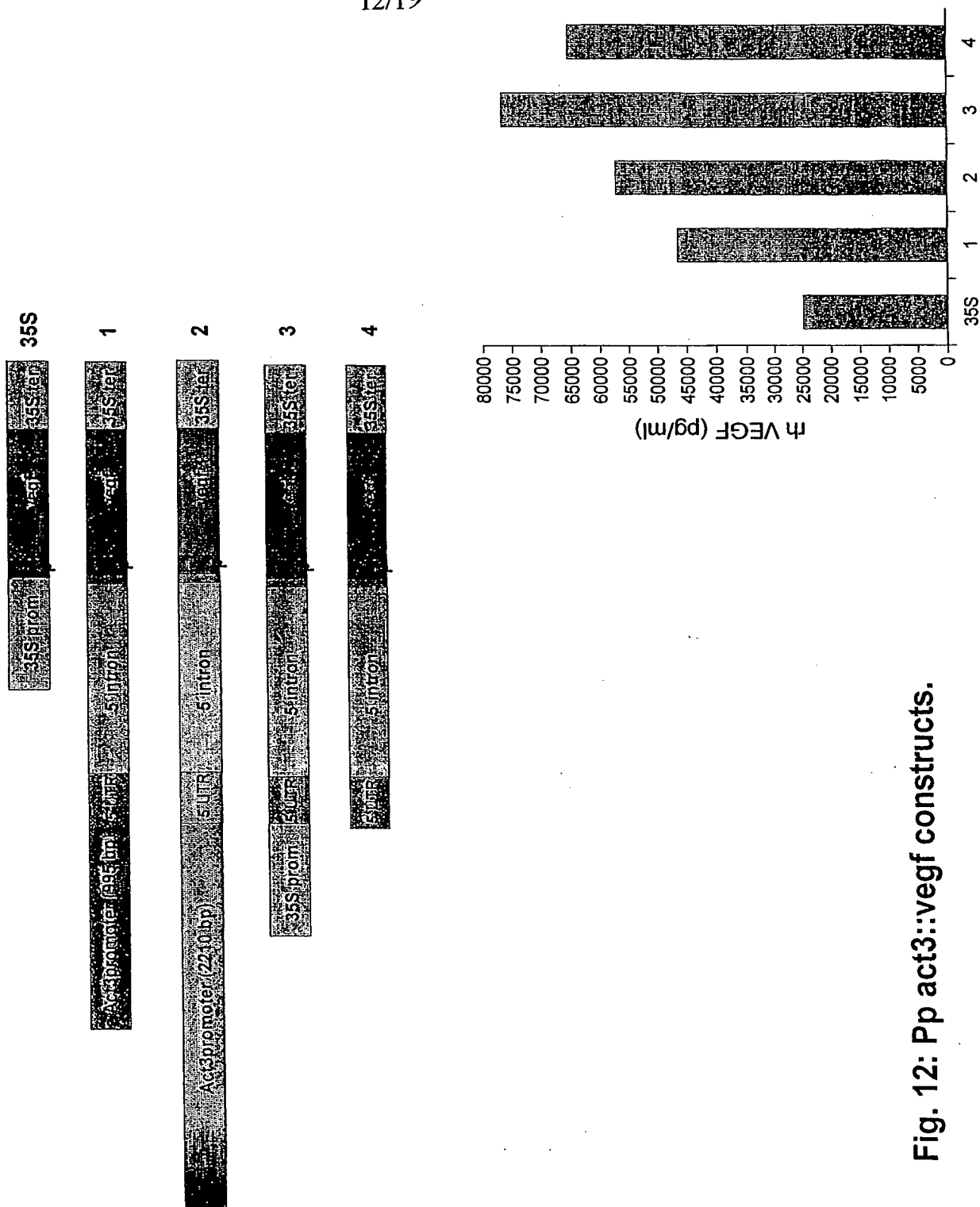


Fig. 12: Pp act3::vegf constructs.

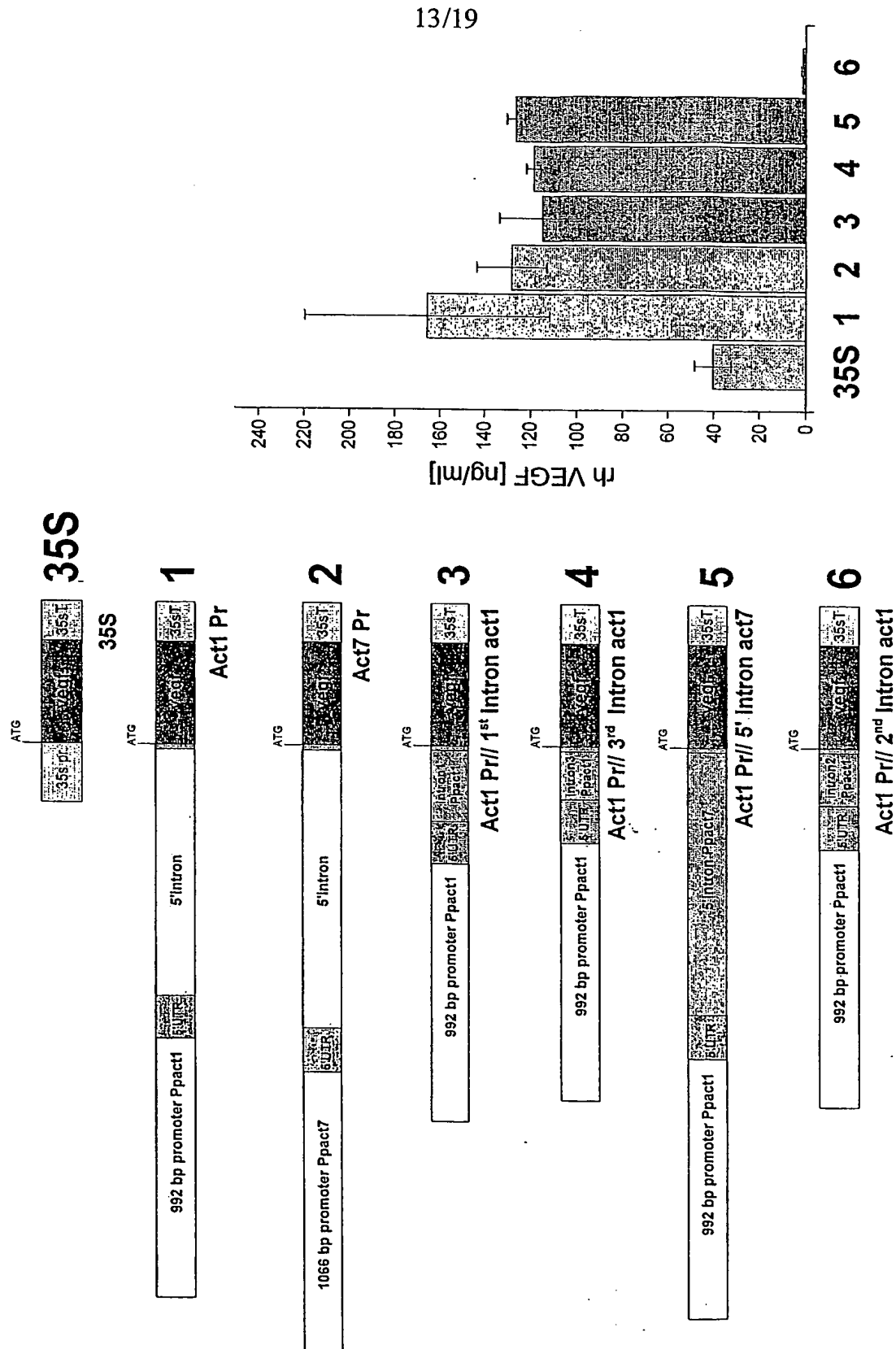
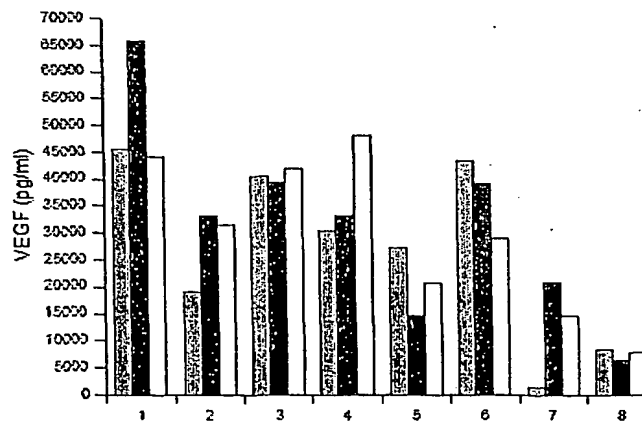
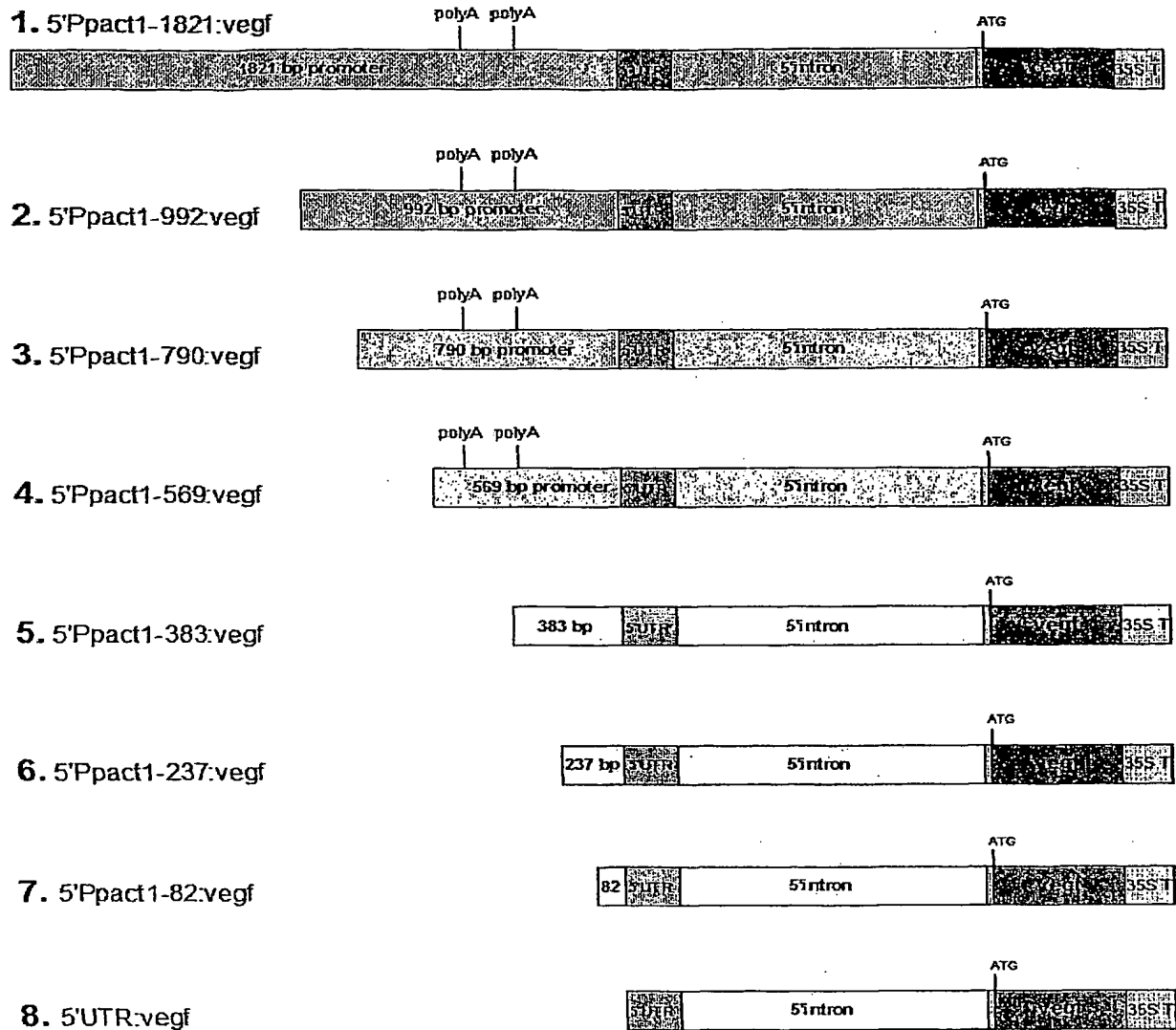


Fig. 13: Ppact1 promoter:5' intron substitutions.

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Fig. 14: Ppact1 promoter:vegf deletion constructs.



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Fig. 15: Ppact3 promoter:vegf deletion constructs.

1. 5'Ppact3-2208:vegf



2. 5'Ppact3-992:vegf



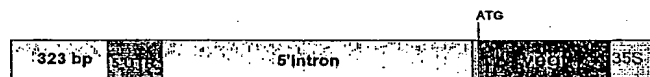
3. 5'Ppact3-821:vegf



4. 5'Ppact3-523:vegf



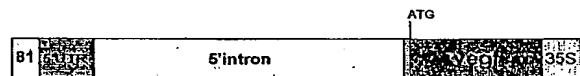
5. 5'Ppact3-323:vegf



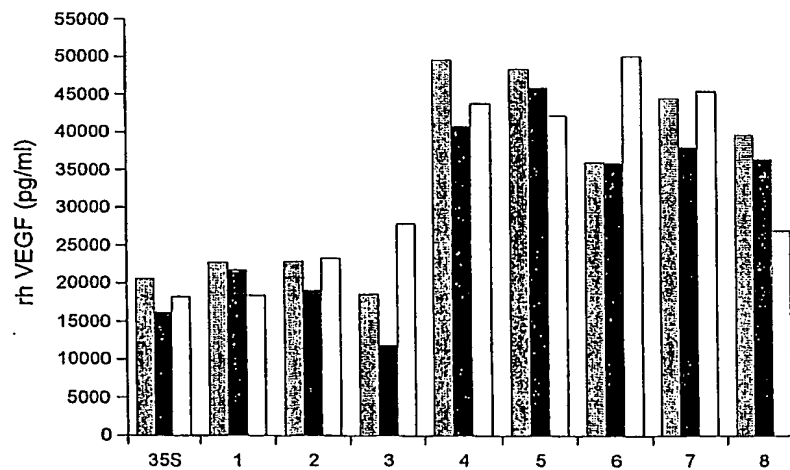
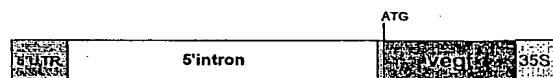
6. 5'Ppact3-182:vegf



7. 5'Ppact3-81:vegf

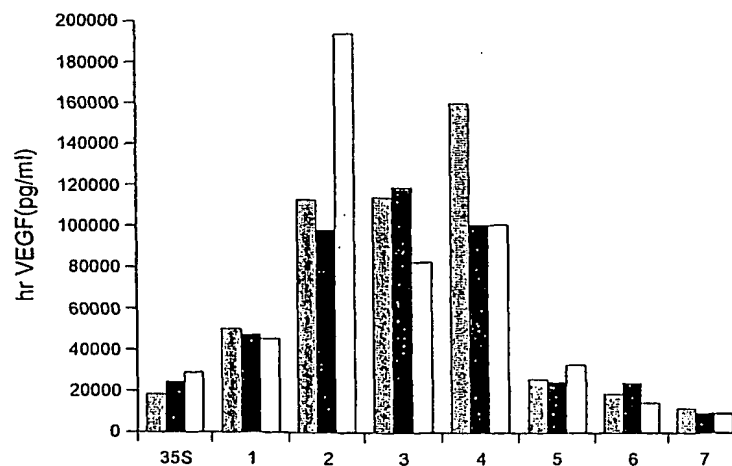
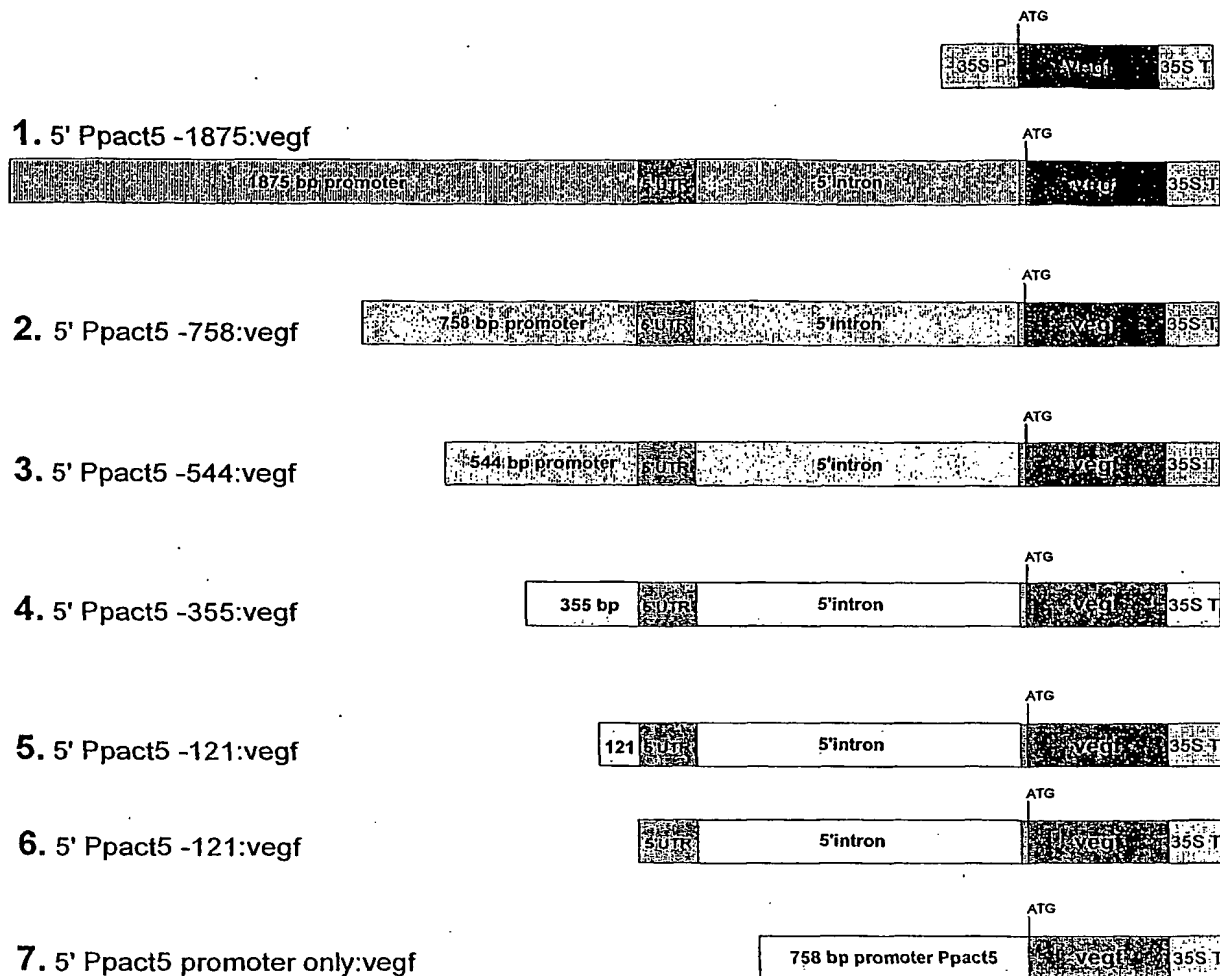


8. 5'UTR:vegf



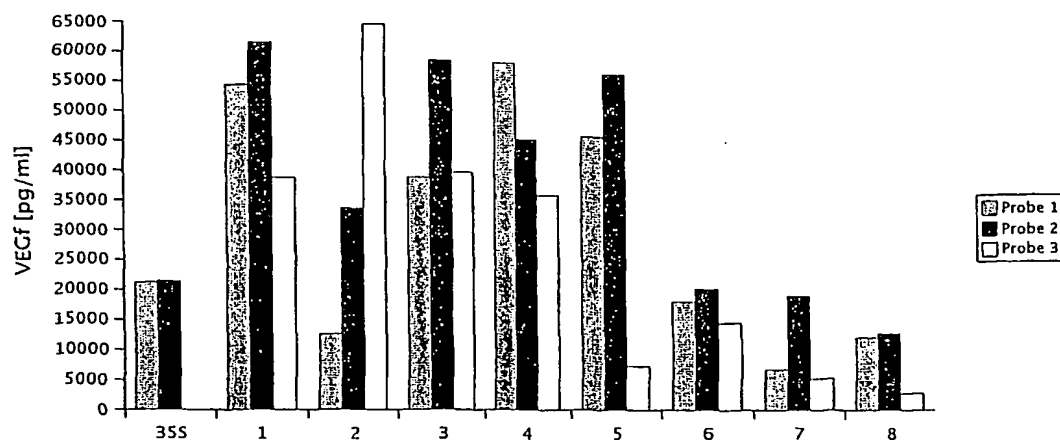
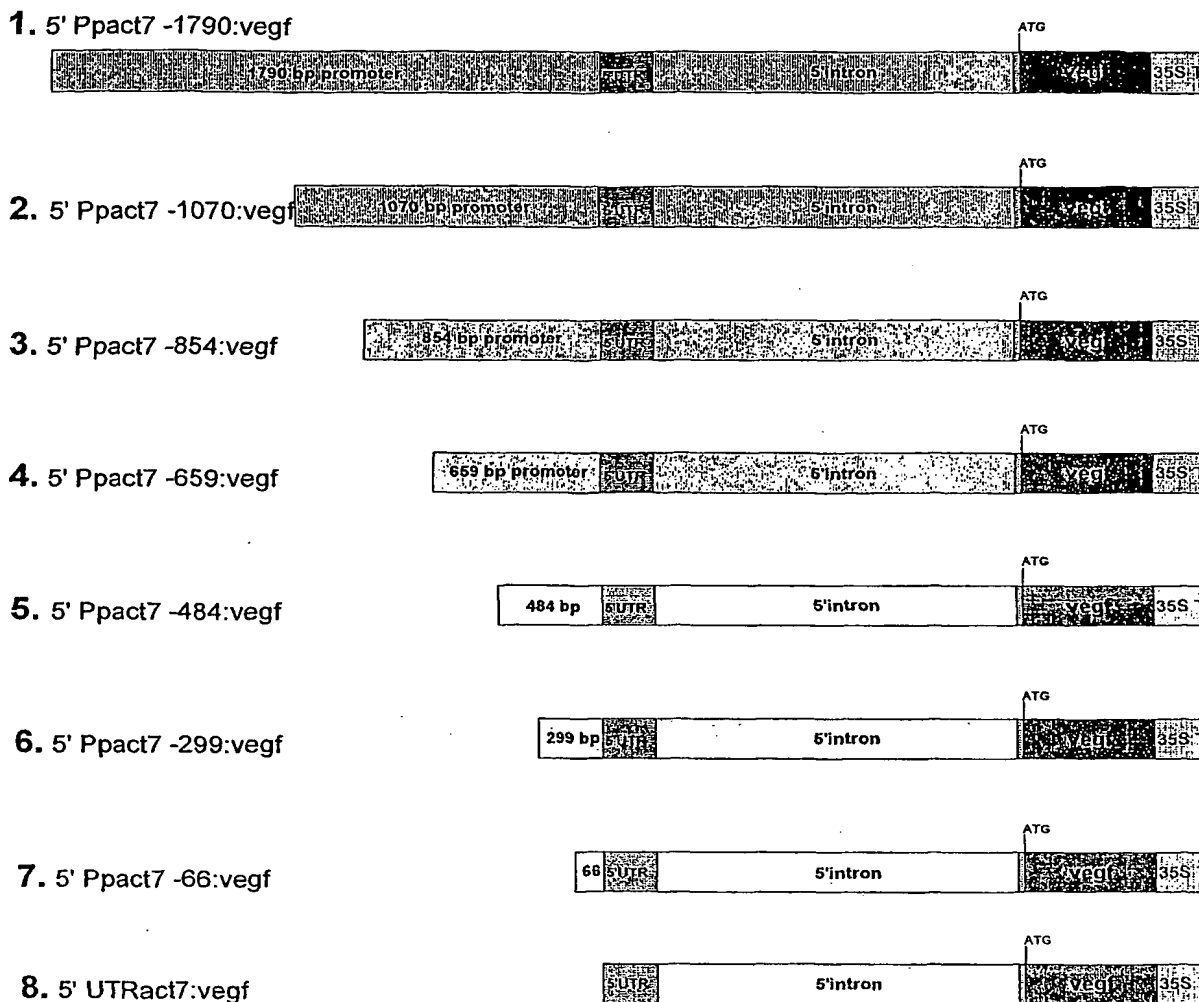
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Fig. 16: Ppact5 promoter:vegf deletion constructs.



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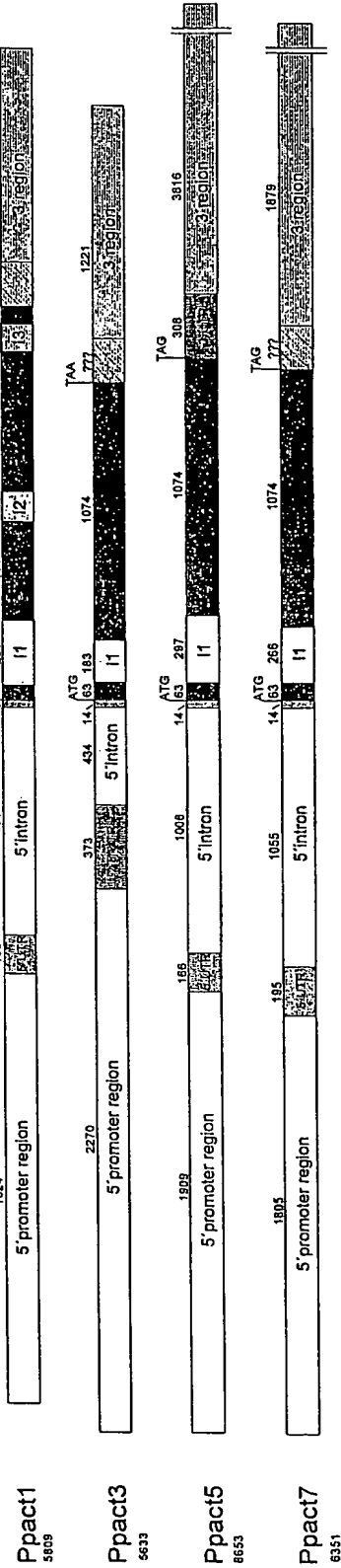
Fig. 17: Ppact7 promoter:vegf deletion constructs.



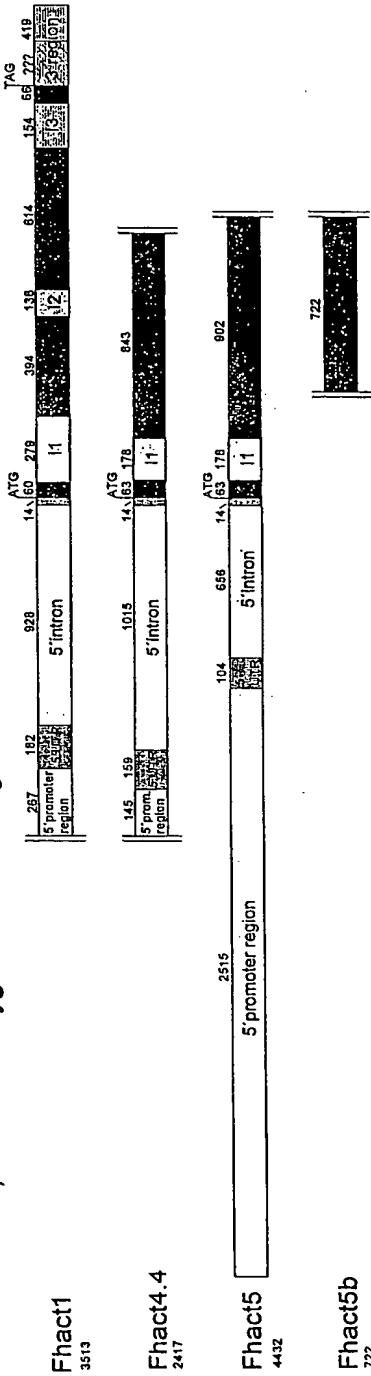
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Fig.18

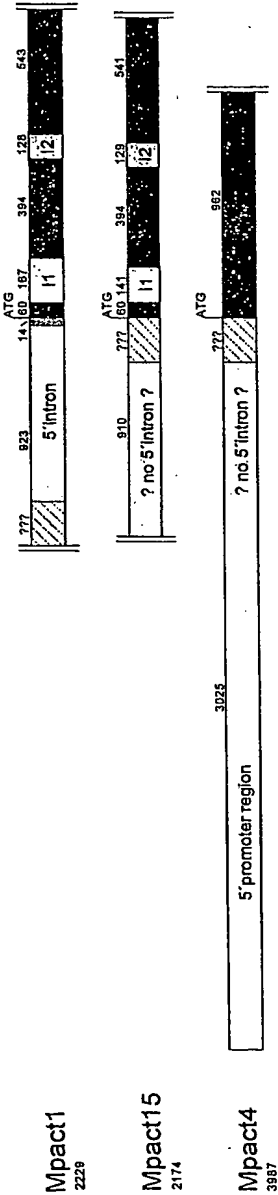
A) *Physcomitrella patens* actin genes



B) *Funaria hygrometrica* actin genes



C) *Marchantia polymorpha* actin genes



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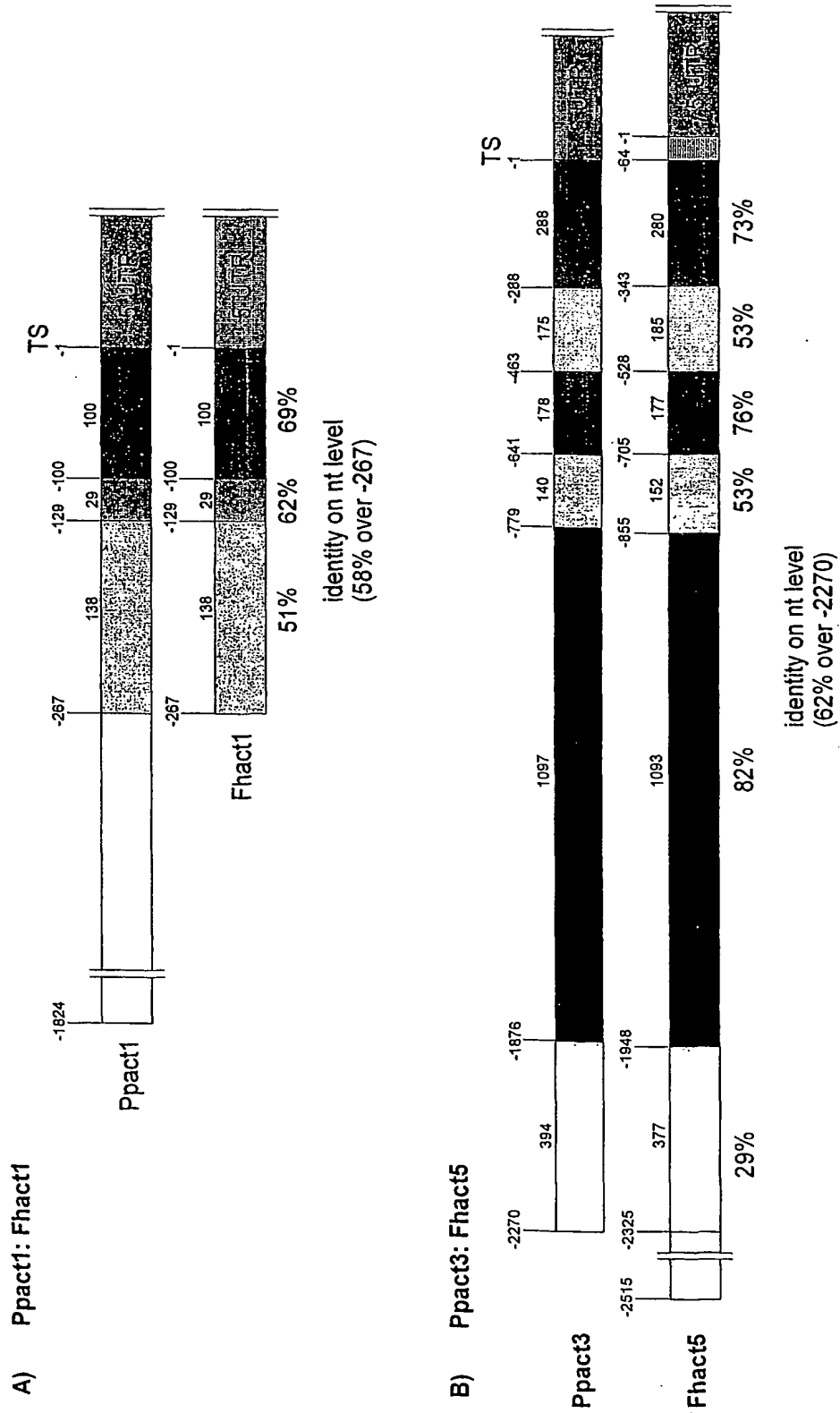


Fig.: 19 Comparison of promoter sequences of homologous actin genes from *Physcomitrella patens* and *Funaria hygrometrica*